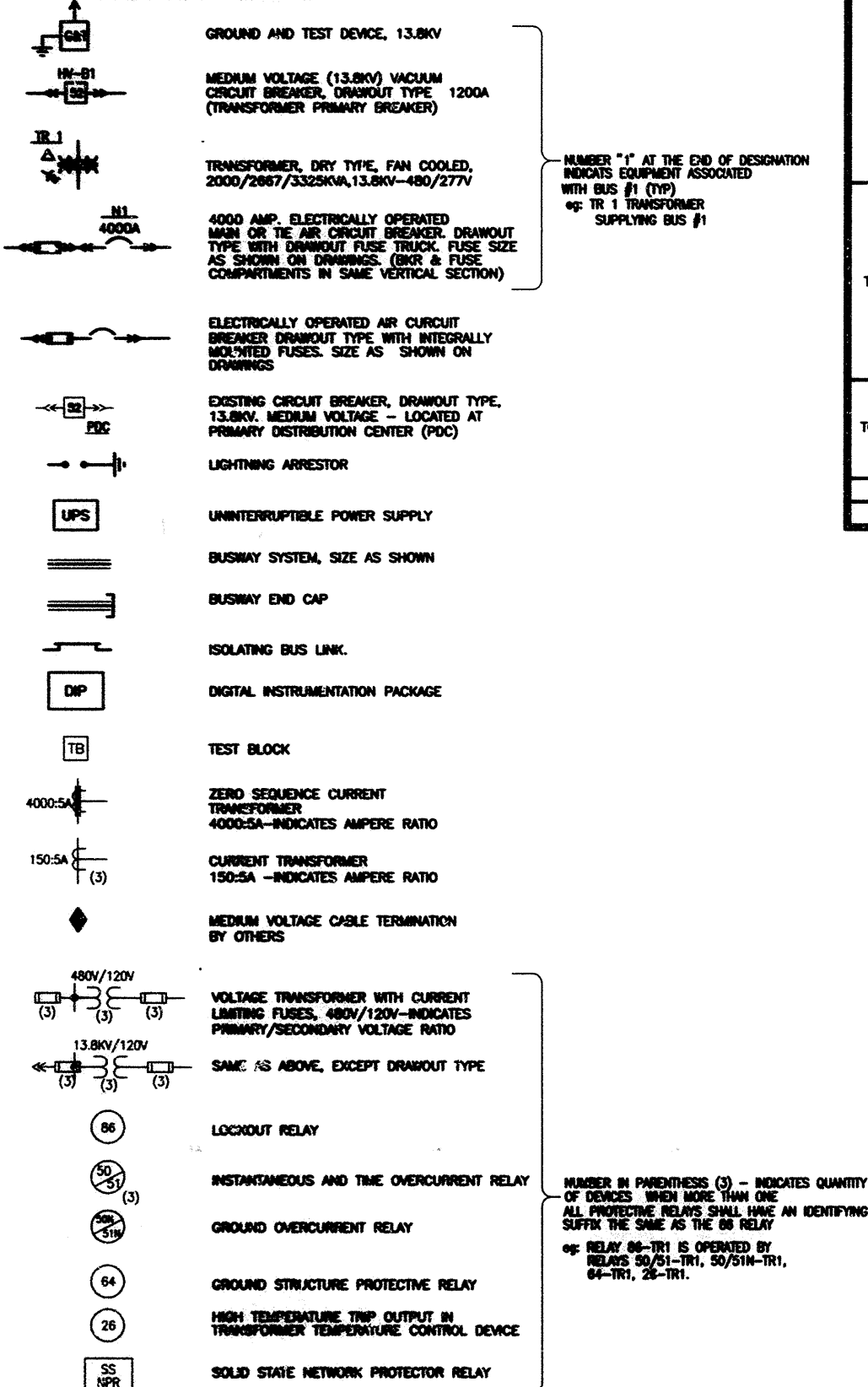


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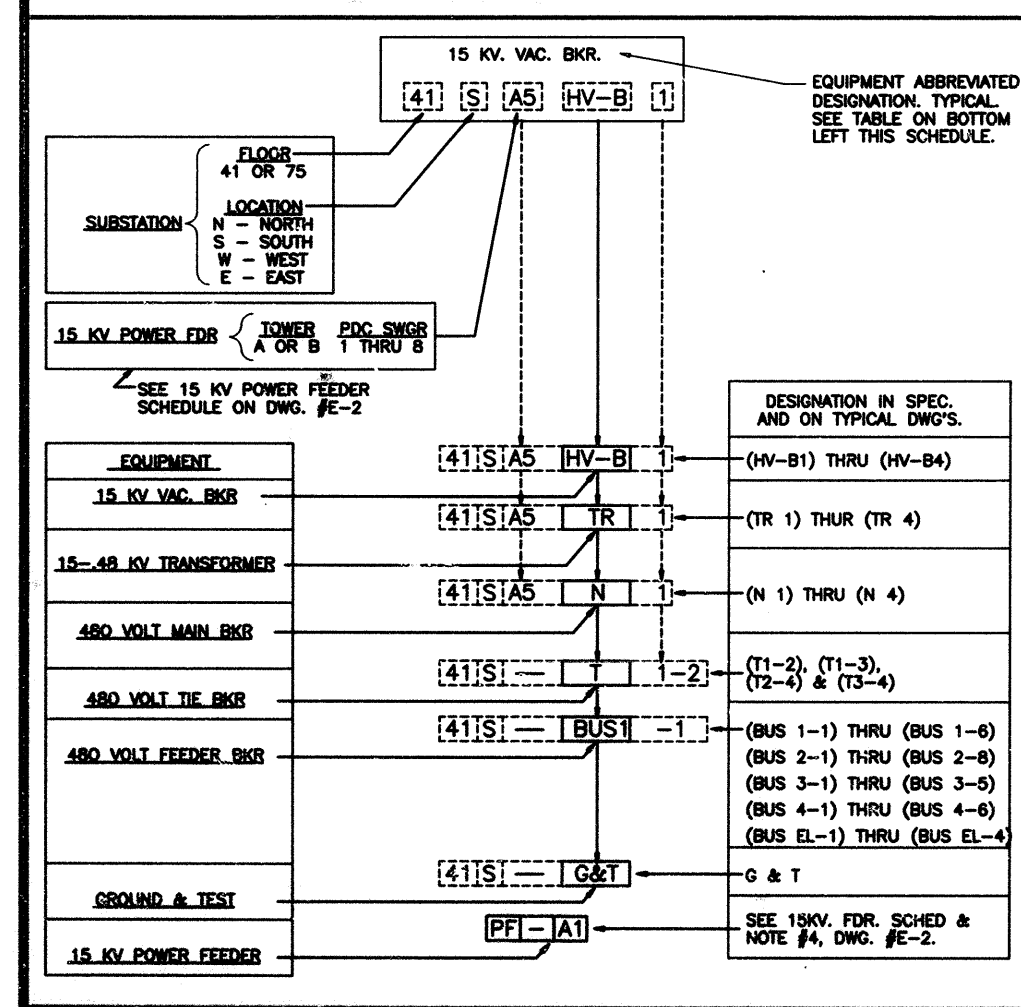
ONE LINE DIAGRAMS LEGEND



SUMMARY OF EQUIPMENT SHOWN ON DRAWINGS E-2 THRU E-12

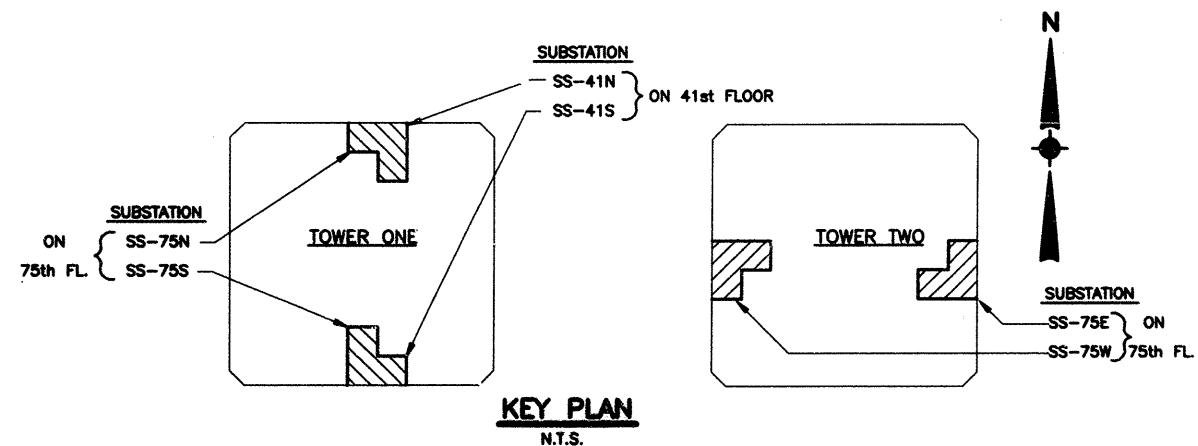
LOCATION		DESIGNATION		SUBSTATION		EQUIPMENT DESCRIPTION AND QUANTITIES																		
						HV-B (MEDIUM VOLT. - (13.8KV) - SWGR SECT.)	G&T (13.8KV GND. & TEST DEVICE)	TR (13.8--48 KV DRY TYPE VPI DIST. XFMR SWGR SECT.)	N (4000A MAIN FUSED AIR CKT BKR SWGR SECT.)	T (4000A TIE FUSED AIR CKT BKR SWGR SECT.)	4000A 600V BUSWAY SYSTEM	LOW VOLTAGE FEEDER SWITCHGEAR SECTIONS				LOCAL CONTROL CABINET	UPS - (UNINTERRUPTIBLE POWER SUPPLY)	MEDIUM VOLTAGE (13.8KV) VACUUM CIRCUIT BREAKER	4000A MAIN AIR CIRCUIT BREAKER	5000A FUSE CARRIAGE ASSEMBLY (FOR MAIN AIR CKT BKR)	4000A TIE AIR CIRCUIT BREAKER	5000A FUSE CARRIAGE ASSEMBLY (FOR TIE AIR CKT BKR)	FUSES OF EACH TYPE AND RATING	SEE DRAWING NO.
												NO.	2000A	1600A	800A									
TOWER ONE	41st FLOOR	NORTH	SS-41N	4	1	4	4	4	2	B1 THRU B4 BUS EL	2	12	7	1	1	-	-	-	-	-	-	E-		
		SOUTH	SS-41S	4	1	4	4	4	2	B1 THRU B4 BUS EL	3	12	8	1	1	-	-	-	-	-	-	E-		
	75th FLOOR	NORTH	SS-75N	4	1	4	4	4	2	B1 THRU B4 BUS EL	2	12	8	1	1	-	-	-	-	-	-	E-		
		SOUTH	SS-75S	4	1	4	4	4	2	B1 THRU B4 BUS EL	2	12	8	1	1	-	-	-	-	-	-	E-		
TOWER TWO	75th FLOOR	WEST	SS-75W	4	1	4	4	4	2	B1 THRU B4 BUS EL	2	14	7	1	1	-	-	-	-	-	-	E-		
		EAST	SS-75E	4	1	4	4	4	2	B1 THRU B4 BUS EL	2	14	6	1	1	-	-	-	-	-	-	E-		
		SPARE		-	-	1	-	-	-	-	-	-	-	-	2	2	2	2	2	2	6	-		
TOTAL				24	6	25	24	24	14	-	-	-	-	13	76	68	6	8	2	2	2	2	6	-

EQUIPMENT NAMEPLATE IDENTIFICATION



ABBREVIATIONS

A . AMP	AMPERE	No. #	NUMBER
A.F.F.	ABOVE FINISHED FLOOR	N.T.S.	NOT TO SCALE
AL	ALUMINUM	P	POLE
ALT.	ALTERNATE	PDC	PRIMARY DISTRIBUTION CENTER
ATS	AUTOMATIC TRANSFER SWITCH	PH. #	PHASE
BKR	BREAKER	PNL	PANEL
BLDG	BUILDING	PP	POWER PANEL
C.B.	CIRCUIT BREAKER	QTY	QUANTITY
C . COT.	CONDUIT	RM	ROOM
CAB	CABINET	RP	RECEPTACLE PANEL
CKT	CIRCUIT	S	SOUTH
CLOS.	CLOSET	SCHED.	SCHEDULE
€	CENTERLINE	SECT	SECTION
COMPT.	COMPARTMENT	SH	SHIELDED
CT	CURRENT TRANSFORMER	SP	SPARE
CU	COPPER	SPEC.	SPECIFICATIONS
DIP	DIGITAL INSTRUMENT PACKAGE	S.T.	SHORT TIME
DISC.	DISCONNECT	SW	SWITCH
DIST.	DISTRIBUTION	SWGR	SWITCHGEAR
DP	DISTRIBUTION PANEL	TEMP	TEMPORARY
DWG(S)	DRAWING(S)	TERM	TERMINAL
E	EAST	TR, TRANS, XFMR	TRANSFORMER
E.C.	EMPTY CONDUIT	TYP	TYPICAL
ELECT	ELECTRICAL	TW/PR	TWISTED PAIR
ELEV.	ELEVATOR	UPS	UNINTERRUPTIBLE POWER SUPPLY
EXIST	EXISTING	UV	UNDERVOLTAGE
F	FUSE	V	VOLTS
FDR	FEEDER	VAC.	VACUUM
FL. FLR.	FLOOR	VOLT.	VOLTAGE
G.F.	GROUND FAULT	VPI	VACUUM PRESSURE IMPREGNATED
GND.	GROUND	VT	VOLTAGE TRANSFORMER
G & T	GROUND & TEST DEVICE	W	WEST
H.V.	HIGH VOLTAGE	W.T.C.	WORLD TRADE CENTER
HV-B	HIGH VOLTAGE BREAKER		
INST.	INSTALLATION		
INSTA.	INSTANTANEOUS		
KV	KILOVOLT		
KVA	KILOVOLT AMPERE		
KW	KILOWATT		
LTG	LIGHTING		
LP	LIGHTING PANEL		
LT	LONG TIME		
LV	LOW VOLTAGE		
MCC	MOTOR CONTROL CENTER		
MISC.	MISCELLANEOUS		
MTD	MOUNTED		
MV	MEDIUM VOLTAGE		
N	NEUTRAL, NORTH		
N.C.	NORMALLY CLOSED		
N.O.	NORMALLY OPEN		



Sheet 2 of 15



THE PORT AUTHORITY
OF NY & NJ

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ENGINEERING PROGRAM MANAGER
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CHIEF ELECTRICAL ENGINEER

Engineering Department
Design Divisions

The World Trade
Center
Electrical/HVAC
Upgrade Program

Title
ELECTRICAL
SUBSTATION EQUIPMENT
TOWER ONE AND TWO

ELECTRICAL

DRAWING INDEX,
KEY PLAN, LEGEND
AND SUMMARY OF
EQUIPMENT

No. Date Revision Approved

This drawing subject to conditions in contract.
All inventions, ideas, designs and methods
herein are reserved to Port Authority and
may not be used without its written consent.

FISCHER LEAHY J.M.
Designed by Drawn by Checked by

Date FEB 10, 1995 Scale AS NOTED

Contract Number Drawing Number

WTC-802.072A E-1

FILE NAME : 8027201 FEB. 10, 1995